BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Competitive Carriers Carriers for Commission action to support local competition in BellSouth Telecommunications, Inc.'s service territory.	DOCKET NO. 981834-TP FILED: 05/28/99

MOTION FOR INDEPENDENT THIRD PARTY TESTING OF BELLSOUTH'S OPERATIONAL SUPPORT SYSTEMS

The Florida Competitive Carriers Association ("FCCA") and AT&T Communications of the Southern States, Inc. ("AT&T") hereby move the Florida Public Service Commission ("Commission") to initiate an independent third party testing program of the operational support systems ("OSS") provided by BellSouth Telecommunications, Inc. ("BellSouth") for Alternative Local Exchange Carriers ("ALECs").

On December 10, 1999, Movants and others filed a Petition in this docket requesting Commission action to support local competition in BellSouth's service territory. One portion of the Petition described the need to conduct a test of BellSouth's OSS in order to assure that ALECs receive nondiscriminatory access. On May 5 and 6, 1999, the Commission held an OSS Workshop in which interested persons presented information regarding the status of BellSouth's OSS. Presentations also were made regarding third party testing. This motion sets forth in greater detail

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the need for independent third party testing and proposes a comprehensive test plan, which is attached as Exhibit A.

In support of this motion, AT&T shows as follows:

I. BACKGROUND

1.

The Telecommunications Act of 1996 ("Act") imposes duties on incumbent local exchange carriers ("ILECs") such as BellSouth to enable ALECs to enter BellSouth's local telephone market. These duties include the requirement that BellSouth provide ALECs with nondiscriminatory access to BellSouth's network so that ALECs may resell BellSouth's services as well as serve customers through unbundled network elements ("UNEs").

2.

OSS are the computer systems that enable ALECs to gain **nondiscriminatory** access to BellSouth's network in order to obtain resale services and UNEs. OSS also include all related processes, information, and personnel resources needed for BellSouth to provide ALECs with nondiscriminatory access to its network. Specifically, in its *First Report and Order*, the Federal Communications Commission ("FCC") identified access to OSS as UNEs in and of themselves and stated that OSS consist of at least five functions: (1) pre-ordering; (2) ordering; (3) provisioning; (4) maintenance and repair; and (5) billing. Additionally, the FCC "consistently has found that nondiscriminatory access to these systems, databases, and personnel is integral to the ability of

competing carriers to enter the local exchange market and compete with the incumbent LEC." Louisiana II Order, ¶ 83.

3.

Although it has been more than three years since the passage of the Act of 1996, there is virtually no competition in Florida's local telephone market. BellSouth has built a monopoly local telephone market – paid for by Florida ratepayers -- that reaches into just about every home and business within BellSouth's territory. By virtue of this monopoly, BellSouth holds the key to the development of local competition. However, the deficiency in BellSouth's OSS has been a significant barrier to ALEC entry into the local market on a meaningful and significant basis. Extensive evidence has been submitted to this Commission on these deficiencies – deficiencies that only BellSouth can correct. If ALECs are to have a fair chance of breaking BellSouth's monopoly control over the local telephone market, ALECs must be assured that BellSouth's OSS are fully functional and operational and can process significant commercial volumes of orders. Accordingly, if competition is to flourish, then this Commission must require BellSouth to treat ALECs, which must depend upon BellSouth's OSS, as valued customers rather than as hostile competitors. The most efficient and effective means to achieve this goal is to invoke the guidance and assistance of an independent third party to help BellSouth, this Commission and ALECs work through these difficult OSS issues. It is unfortunate, but the fact of the matter is that the current process in which

ALECs, potential competitors of BellSouth, must negotiate OSS issues with BellSouth simply has not worked. As a result, meaningful and significant local competition does not exist.

4.

The best way to obtain the guidance and assistance of an independent third party is for this Commission to order independent third party testing of BellSouth's OSS.

II. NEED FOR THIRD PARTY TESTING

5.

In order for competition to flourish, consumers must be able to switch local phone companies with the same ease they switch long distance companies. This is impossible today. Given the significant competition that exists in the long distance market, Florida customers have come to expect switching long distance carriers with ease and without disruption of their long distance service. ALECs only will be able to compete for Florida customers on a commercial scale when they can sign up customers and provide local service with the same ease that BellSouth offers local service and that is expected in the long distance market. Without independent third party testing, this Commission cannot be sure that Florida customers will be able to switch local phone companies easily and without service interruptions — again, as occurs millions of times a month in the long distance market. Anything short of similar customer experiences in these two related markets will

leave customers angry, disenchanted, and ready to complain to this Commission on a moment's notice – as has already begun to happen.

6.

As to whether BellSouth's OSS provide ALECs with nondiscriminatory access to BellSouth's network, the debate among the various parties before this Commission has been adversarial and mired with rhetoric. ALECs argue that BellSouth has not satisfied the requirements of the Act – and BellSouth counters that it has. The finger pointing goes on as the parties put forth varying interpretations of complex data in efforts to convince this Commission that BellSouth's OSS either are, or are not, providing nondiscriminatory access to BellSouth's network. Although the FCC has determined on three occasions that BellSouth's OSS do not provide nondiscriminatory access to BellSouth's network, all state commissions have struggled to understand the complex technical issues involved, and to untangle the "he said-she said" debate among the parties. Thus, much time has been spent trying to evaluate the performance of BellSouth's OSS on the basis of testimony offered by BellSouth and the ALECs rather than based on the direct, impartial, and knowledgeable examination of the OSS by an independent third party.

Properly designed, executed and monitored, independent third party testing is an efficient way to cut through the ever increasing quagmire of OSS disputes between BellSouth and the ALECs and to promote the development of OSS which fully support local competition in Florida.

Specifically, thorough testing by an independent third party will isolate points where the OSS fail to perform properly and on a nondiscriminatory basis, so that the OSS can be corrected quickly, thereby speeding the competitive process. Such independent third party testing also will ensure that any failure points related to ALEC systems are not improperly blamed on BellSouth.

Furthermore, a comprehensive effort by an independent third party to identify deficiencies (as well as the favorable aspects of BellSouth's OSS) also would expedite resolution of problems and hasten BellSouth's development of full and adequate OSS. Movants' proposed plan would help find and fix problems that currently inhibit entry into the local market.

7.

In its OSS Workshop held on May 5 and 6, 1999, this Commission learned that BellSouth's OSS problems continue. This Commission now has the opportunity to be the first state to rigorously and comprehensively test BellSouth's OSS and to correct any identified deficiencies. Commissions in the Bell Atlantic region have recognized the need for robust and comprehensive independent third party testing for the purpose of assessing Bell Atlantic's OSS and correcting inadequacies and identifying compliance. The New York Public Service Commission ("NYPSC"), for example, has recognized the need for robust and comprehensive independent third party testing for the purpose of assessing Bell Atlantic's OSS and correcting inadequacies and identifying compliance.

8.

In New York, the NYPSC hired KPMG Peat Marwick as an independent firm to design and implement a test of Bell Atlantic's OSS. The NYPSC also hired Hewlett Packard ("HP") as an independent firm to construct "pseudo" or "hypothetical" working systems to interface with Bell Atlantic, over which KMPG Peat Marwick processed orders. KPMG Peat Marwick also was required to evaluate all of Bell Atlantic's related processes, information, and personnel resources which it uses to provide CLECs with nondiscriminatory access to its network. Thus, working together, these two independent companies "stepped in the shoes" of new market entrants by processing diverse transactions and exploring the full range of the functionality of Bell Atlantic's OSS. Because BellSouth would not be the first such company subjected to independent third party testing, this Commission could benefit from experience gained from the testing that has been conducted in New York.

Movants are aware that the Georgia PSC has ordered a limited test of some aspects of BellSouth's OSS. Although the Georgia Commission appears to be moving in the right direction, the test as ordered will be neither as comprehensive nor as rigorous as the New York test. Further, the Georgia test process is neither independent nor open, in that BellSouth will design the test and select the testers. In contrast, the plan proposed by Movants provides for an independent, open and comprehensive third party test.

9.

A properly designed and executed independent third party test offers benefits that compel its use in Florida. Four benefits are particularly important. *First*, having an independent third party

design and conduct a comprehensive test of BellSouth's OSS will result in finding and fixing problems that would inhibit entry into the local market, thereby jump-starting competition in Florida. *Second*, the independent third party's evaluation of data obtained during a comprehensive test will give this Commission an objective view of functionality, capacity and performance of these OSS. That evidence, when combined with subsequent satisfactory evidence of actual commercial usage, will enable this Commission to fully evaluate whether BellSouth's OSS meet the requirements under the Telecommunications Act. *Third,* such testing enables this Commission to assess a broad range of functions for a wide array of transactions – not just limited functions across only a few transactions. Thus, even if a particular aspect of BellSouth's OSS is not being used extensively by ALECs today, the Commission can be satisfied that all aspects of BellSouth OSS likely will be operational, provided the test scenarios are sufficiently comprehensive and all relevant functions and transactions are evaluated. *Finally,* properly designed third party testing also can provide significant insight regarding operational capabilities for handling large volumes of orders placed by ALECs before real Florida customers are used as "guinea pigs" to test the capabilities of BellSouth's OSS to handle large volumes of actual orders. Accordingly, third party testing would lay a significant foundation for the subsequent real test of BellSouth's OSS – the handling of large volumes of actual orders by ALECs. Only after successfully addressing both of the aspects of testing – first, whether BellSouth OSS can handle "pseudo" orders and second, whether BellSouth's OSS can handle large volumes of actual orders -- will this Commission be able to establish an environment in which local competition really will flourish in Florida.

10.

An independent third party test also would prove useful in the context of ALEC and customer complaints. The Commission Staff is in the process of sifting through customer complaints regarding outages resulting from service cutovers. A comprehensive independent third party test should reduce significantly the number of customer and ALEC complaints the Commission otherwise is certain to receive. Further, an independent third party test offers BellSouth the opportunity comprehensively to identify and correct all of its OSS problems in a structured environment rather than through piecemeal litigation.

III. PROPOSED PROCEDURE

11.

At this critical stage, an independent third party test is not just an adjunct to opening the local market to competition, but rather is an essential component for developing robust local competition. To date, BellSouth has been unwilling or unable to produce acceptable details that allows either this Commission or ALECs to perform fundamental validation and root cause analyses in order to draw any conclusions from reported statistics and to test successfully BellSouth's assertions about the capabilities of its OSS. As a result, today ALECs have no confidence in BellSouth's OSS. To the extent an independent third party test is able to validate BellSouth's historical raw data, ALECs'confidence in BellSouth's OSS will increase – as will local competition. Accordingly,

investing in thorough independent third party testing will increase competition, to the benefit of Florida customers.

12.

As outlined in the attached plan, FCCA and AT&T propose that the following procedure be utilized as minimum requirements for independent third party testing:

a. The development, testing and monitoring process must be performed by an independent, technically skilled third party. This independent third party must be empowered to assure that comprehensive test scenarios are designed, that these scenarios are executed in a manner that examines operational capabilities and volume capacity, and that performance is measured in a manner that is consistent with that which will be employed in the competitive marketplace.

b. The process for selecting the independent third party and establishing its scope of work should occur in a public forum, under Commission supervision, and should begin immediately so as not to delay the process.1

c. The selected independent third party should prepare a detailed plan for a comprehensive test of BellSouth's OSS, including all pre-ordering, ordering, provisioning, maintenance and repair and billing functions. The parties should have the opportunity to comment on the plan to ensure that the entire spectrum of OSS functions and business processes are tested.

1 The parties suggest that the Division of Research and Regulatory Review is well-suited to provide oversight of the test process because it has spent over one year reviewing BellSouth's OSS. The Division therefore is uniquely qualified to act as Commission liaison to the third party tester.

d. Test scenarios must be developed carefully to reflect as much as possible the real world experience of ALECs, including the mix of services and operational transactions that are crucial to the development of competition. At a minimum, the basic capacities and functionalities required by the Act must be tested as if they were being put through the rigors expected from a fully competitive marketplace to determine whether BellSouth's OSS are adequate.

i.) For pre-ordering and ordering, the pre-ordering transactions and order types must represent a realistic sampling based on commercial experience and market entry plans of ALECs and all types of service delivery methods, as well as conversions from one service delivery method to another. It also is important that testing cover actual provisioning of the loops, ports, and other elements ordered, including local number portability and ancillary services such as 911, directory assistance and listings, and combinations of these and other UNEs. Only with this type of testing can BellSouth show that it can provision UNEs, alone and in combination, in a timely fashion and at levels that might subsequently support actual commercial volumes.

ii.) For billing, any testing scenarios must involve multiple end offices and a diversity of call types, because proof that BellSouth can bill from a single end office for a particular call type is not proof that it can bill for all service delivery methods across its entire network.

iii.) Repair and maintenance requests should be included for all relevant service delivery methods and should be conducted on live operating service configurations where possible. Finally, it is vital that this effort be viewed not simply as testing the existence of an electronic

interface, but also, most critically, the underlying BellSouth processes, information and personnel resources which BellSouth uses to provide ALECs with nondiscriminatory access to its network.

e. The independent third party should be required to use specifications provided by BellSouth to develop the "pseudo" or "hypothetical" systems on the ALEC side of the interface necessary to interact with BellSouth's own OSS. BellSouth should not be permitted to provide guidance to the independent third party unless the same information, explanation, clarification and corrections are immediately disseminated to all ALECs and promptly incorporated into BellSouth's governing documentation. As part of this process, the independent third party also should be required to evaluate BellSouth's change management process -- the process by which BellSouth makes changes to its OSS. Accordingly, any interface adjustments including, but not limited to, business rule modifications, and changes and data requirement formatting resulting from the testing process, also should be implemented through the change control management procedure.

f. ALECs should have the opportunity to verify what is being tested. In particular, they should receive a list of all documentation that BellSouth provides to the independent third party and documented summaries of all communications between BellSouth and the independent third party. ALECs must be able to verify that the independent third party is using the same information that BellSouth provides to ALECs.

g. An independent third party test also should include protocols to test processes (relationship and operational analysis) as well as systems (transaction-driven system analysis). In

this respect, tests should not be initiated until there is mutual agreement that the testing criteria have been established and processes have been established to identify and document critical flaws in the systems and processes under review, with repeated regression testing until the critical flaw is resolved.

h. As mentioned above, the independent third party should "stand in the shoes" of ALECs entering BellSouth's market, so that it will be able to fairly evaluate BellSouth's performance with regard to all tasks normally performed by ALECs. Therefore, the independent third party should test the entire market entry process, using all modes of entry contemplated by the Act, regardless of whether any single ALEC currently uses such entry strategy in BellSouth's territory, and regardless of pending legal challenges to issues related to the provisioning of UNEs or UNE combinations. The independent third party should incorporate test protocols to evaluate day-to-day operations and operational management practices, including policy development, development of procedures and procedural change management. As stated, the independent third party should validate and verify processes to determine that they function correctly in accordance with existing documentation and must rely upon, as well as evaluate, BellSouth's established methods and procedures, including BellSouth's existing change control process.

i. Test orders also should be as "blind" as possible in that volume and stress testing should be initiated without advance warning to BellSouth. Additionally, the test should include "normal" and "peak" commercial volumes, to be established based on forecast information from BellSouth and ALECs. Billing functionalities also should be tested during several billing cycles. And, as

mentioned above, when test failures occur, they should be identified as exceptions and the consequences of non-correction established before further testing continues. And to the extent corrections are made by BellSouth, the OSS should be retested to ensure 1) that the initial problem is corrected and 2) that corrective actions do not cause problems in other parts of BellSouth's existing OSS.

j. For an independent test to have any meaning, the results must be measured against the performance BellSouth provides for itself. The process for gathering, computing and comparing performance results must be audited in order to assure that the results produced are in accordance with documentation and approved procedures for self-monitoring. Again, failure to satisfy performance standards should result in correction in the root cause of the problem and retesting as necessary.

k. Finally, any test report(s) should document procedures as well as test results, should evaluate test outcomes with respect to pre-established goals and should recommend improvements to the Commission.

IV. COST OF THIRD PARTY TESTING

13.

Obviously, resources will be required to prepare and conduct the tests and to analyze test results, but experience gained from third party testing of Bell Atlantic's OSS in New York should serve to make third party testing cost-effective. If BellSouth's OSS operate with very little difficulty

(as BellSouth alleges they do), costs will be lower than if the tests identify significant problems. BellSouth must demonstrate to both this Commission and the FCC that it has implemented nondiscriminatory OSS. Accordingly, because an independent third party test will be a critical component of BellSouth's efforts to prove that it meets its legal obligations under the Act, BellSouth should bear these costs, as it will in Georgia. Such an investment is insignificant compared to BellSouth's reported press statements and statements in various regulatory proceedings that it already has spent hundreds of millions of dollars developing its OSS. Most recently, in this Commission's OSS workshop, BellSouth presenter Mr. William Stacy stated that BellSouth has spent "somewhere in excess of $350 million" developing its systems, 2 and the Commission heard evidence from a wide variety of ALECs that such systems still are woefully insufficient. A comprehensive third party test would permit the Commission to make significant progress toward resolving this difficult, complex and crucial issue.

V. REQUEST FOR RELIEF

14.

WHEREFORE, for the foregoing reasons, FCCA and AT&T respectfully request the Commission to order independent third party testing of BellSouth's OSS consistent with the showing above and the attached plan.

2 Transcript, OSS Workshop, May 5, Vol. 1 pg. 177.

Respectfully submitted this 28th day of May, 1999.

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PLAN FOR IMPLEMENTING THIRD PARTY TESTING

Executive Summary

In order to find and fix problems that inhibit entry into the local market, the State Commission should select an independent, technically-skilled third party tester or testers (TPT) and mandate that the TPT design and conduct a thorough and independent test of BellSouth's Operational Support Systems (OSS). A process for selecting the TPT is recommended. The TPT should develop a detailed a specific test plan that will enable the TPT to test all BellSouth procedures, processes and systems offered by BellSouth for use by a CLEC entering the local market. The plan should include an Exception Process to be invoked by the TPT when the test identifies a critical flaw in the system or process under review, and must require repeated regression testing until the critical flaw is resolved.

The TPT should test processes (a relationship and operational analysis) as well as systems (a transaction-driven system analysis). Each of the entry options that may be used by a CLEC should be tested, including but not limited to resold services, unbundled network elements (UNEs), the UNE platform, UNE combinations other than the platform, extended loops, interim and permanent number portability, and operator and directory assistance services. The test plan should cover the full range of possible order types through the entire sequence of functionalities available to CLECs, and should evaluate all modes of market entry to ensure that OSS for all modes of entry contemplated by the Telecommunications Act is available to CLECs. Pre-ordering, ordering, provisioning, maintenance and repair and billing systems should be tested. Test orders should be designed to test BellSouth's ability to process commercial volumes, including spikes as well as sustained volume. Additionally, the TPT should establish a basis for comparing BellSouth's internal performance with the performance it provides to CLECs, and should collect data and records as necessary to evaluate such performance.

The final test report should determine whether BellSouth is providing nondiscriminatory access to its OSS and, through its OSS, to its underlying network.

STEP ONE: CHOOSING THE THIRD PARTIES

GOAL: Selection of completely independent, technically-skilled third party testers under mandate to design and conduct a thorough and independent test.

Process Overview:

1. After input from parties, Commission establishes guidelines/principles for test process, including the scope of the test, which will establish a framework for the test plan that will be developed by the Third Party Testers (TPTs). Opportunities for input by parties will vary from state to state, and may include written comments, workshops or hearings.
2. State Commission then selects TPTs as described below.
   - A. Sole Source Procurement:
     State procurement law may be applicable, although the Commission would not be paying the TPT. If possible under state procurement law, a knowledgeable and experienced vendor should be selected to develop and conduct the evaluation (the "Test Manager") and an experienced and technically skilled vendor should be selected to build the OSS interface and execute test transactions through that interface (the "Test Transaction Generator"). Both the Test Manager and the Test Transaction Generator will be referred to as "the TPT". Sole source procurement may be justified based on the prior experience of these parties and the highly technical and specialized nature of the test.
   - B. Request for Proposal (RFP) Process:
     If sole source procurement is not possible, the state Commission would issue one or more Requests for Proposals (RFPs) for the Test Manager and the Test Transaction Generator as follows:
   - (1) The Test Manager should be selected first or both may be selected together.
     - (a) The state Commission could use the NY RFP as a template (See Appendix 2)
     - (b) Parties submit comments regarding suggested modifications to template. If Commission elects not to use NY RFP as template, parties would submit draft RFP for review.
     - (c) Commission reviews comments and issues RFP.
     - (d) Applicants' responses to RFP will be provided to staff and parties, all of whom rank selections (process similar to selecting arbitrator) and submit ranking to Commission, along with comments.
     - (e) Commission reviews comments, eliminates from consideration those who do not meet selection criteria, and selects applicant most highly ranked by the parties that meets all criteria.
   - (2) If two sequential RFPs are desired, the Test Manager will assist the Commission in preparation of an RFP for selection of the Test

Transaction Generator, following the same template/comment/review procedure noted above. (See Appendix 3)

Discussion:

1. TPT must be demonstrably neutral and independent.
2. The state Commission, rather than BellSouth or CLECs, will be the TPT's client.
3. Sole source procurement would be faster and more cost-effective than the RFP process. If sole source procurement is not available, use of the the NY RFP would offer a proven baseline and expedite the process.

STEP TWO: DEVELOPING THE TEST PLAN

Goal: A detailed and specific test plan that will enable the TPT to test all BellSouth procedures, processes and systems offered by BellSouth for use by a CLEC entering the local market.

Process overview:

1. TPT gathers information and prepares test plan.
   - A. TPT gathers information from CLECs regarding BellSouth 'products' that CLECs may purchase from BellSouth.
   - B. TPT gathers information from BellSouth regarding procedures, processes and systems available to CLECs.
   - C. TPT uses this information to develop plan that will include two types of tests:
     - (1) Relationship and operational analysis
     - (2) Transaction-driven system analysis
   - D. TPT publishes draft plan for comment by parties, including Commission staff.
   - E. TPT revises plan if necessary.
   - F. TPT issues final test plan.
2. To ensure integrity, the entire testing process should be open:
   - A. All information provided by BellSouth to the TPT must be available to CLECs and distributed at the same time.
   - B. All written communications between BellSouth and the TPT should be provided to the CLECs.
   - C. The TPT should keep minutes of all verbal contacts between the TPT and BellSouth, which promptly would be distributed to the CLECs.
   - D. The CLECs should have all information necessary to allow them to verify, through concurrent testing or commercial operations, the processes under investigation by the TPT to ensure that real-world experience bears out the tester's experience.
3. Test plan must include an Exception Process to be invoked by TPT when test identifies a critical flaw in system or process under review, and must require repeated regression testing until the critical flaw is resolved.
   - A. TPT would issue a notice of exception, documenting the flaw.
   - B. BellSouth would be given an opportunity to respond to the exception, with response provided to CLECs.
   - C. Thereafter, CLECs and staff would have the opportunity to submit comments.
   - D. If BellSouth elects to clear the exception, it shall use the existing Change Control Process or Account Management Process to do so, and the TPT shall document and evaluate BellSouth's efforts to clear the exception.
   - E. Once BellSouth determines that the flaw has been remedied, the TPT shall re-test the system or process, and shall repeat this process as necessary until the critical flaw is resolved or BellSouth elects not to clear the exception.

F. The Exception Process documentation should be available on a public Website accessible by all interested parties.

Discussion:
The Test plan must be developed by TPT, based upon information gathered independently by TPT, and with opportunity for comment by parties and staff. The Plan should include protocols to test processes (relationship and operational analysis) as well as systems (transaction-driven system analysis).

1. **Relationship and Operational Analysis**:
   A. The Test plan should allow the TPT to evaluate the entire market entry process, using all modes of entry contemplated by the Telecommunications Act, regardless of whether any single CLEC currently is using such entry strategy in BellSouth's territory, and regardless of pending legal challenges to issues related to provision of UNEs or UNE combinations.
   B. TPT should incorporate test protocols to evaluate day-to-day operations and operational management practices, including policy development, development of procedures and procedural change management. The TPT should validate and verify processes to determine that they function correctly and according to documentation and expectations.
   C. The Test plan should allow the TPT to 'stand in the shoes' of a CLEC entering BellSouth's market, so it will be able fairly to evaluate BellSouth's performance with regard to all tasks normally performed in conjunction with a CLEC's market entry, including but not limited to:
      (1) Account establishment and management
      (2) Interface development
      (3) Interconnection planning
      (4) Connectivity
      (5) Network design
      (6) Collocation planning
      (7) System administration help
      (8) CLEC training
      (9) Forecasting
      (10) Interconnection agreement or adoption of SGAT
      (11) Contracts for Usage Records*
      (12) Contracts for access to databases*
      (13) Contracts for UNE combinations*
      (14) Contracts for LNP*
      (15) Problem resolution

      * These are independent contracts required by BellSouth in addition to an interconnection agreement or SGAT.
   D. TPT must rely upon as well as evaluate BellSouth's established methods and procedures, including its Change Control Process and Account Management Process.

(1) All changes to systems, processes and documentation during the test must be made through established Change Control or Account Management Process, whether initiated by BellSouth or requested by the TPT or a CLEC.

(2) Test plan must include an evaluation of BellSouth's compliance with its established procedures.

2. **Transaction-driven system analysis:**

TPT should develop test protocols to initiate transactions, track transaction progress, and analyze transaction completion results to evaluate all systems being tested. In order to do so, the TPT must (a) define service order types to be processed, using BellSouth's pre-ordering, ordering and provisioning systems; (b) define maintenance, repair and emergency restoration scenarios; and (c) define CLEC billing requirements.

A. Defining service order types to be processed:

(1) Each of the entry options that may be used by a CLEC should be tested, including but not limited to resold services, UNEs, UNE-P, UNE combinations other than the platform, extended loops, INP, LNP, and operator and directory assistance services.

(2) The test plan should identify the full range of possible order types through the entire sequence of functionalities and over all system interfaces available to CLECs, regardless of whether any single CLEC is using all interfaces, including manual interfaces. Test should evaluate all modes of market entry including, but not limited to, resale, UNEs, UNE combinations and interconnection. This is needed to ensure that OSS for all modes of entry contemplated by the Telecommunications Act is available to CLECs regardless of whether other barriers currently prevent CLECs from entering the local market.

(3) Order types would be used to generate detailed, real-world scenarios, including specific order and customer information, which will form the basis for specific test orders. Order types should not be limited to those currently in use.

(4) The plan should provide for test orders to be initiated and followed through the entire sequence of functions, including preordering, ordering, provisioning, maintenance and repair, and billing. More detailed requirements for testing each function are listed below.

(5) Test orders should be placed using the process described in BellSouth's documentation, and should allow for a thorough assessment of BellSouth's systems in expected real-world operation. Orders should be designed to test:

(a) Electronic flow-through
(b) Manual procedures
(c) Timeliness
(d) System fault tolerance

(e) Restoration and backup procedures
(f) BellSouth's ability to identify and respond appropriately to foreseeable transaction errors (invalid USOC, incorrectly populated field) and change orders
(g) Ability to process commercial volumes, including spikes as well as sustained volume

(6) The mix of orders should be realistic, involving the types of orders that are likely in a competitive environment. CLECs should be able to provide input to the TPT. Relationships (ratios) between transaction types should also be realistic, for example the ratio of pre-order transactions to order transactions and invalid orders to valid orders.

(7) The TPT should develop, submit, and track the Local Service Requests (LSRs) and Access Service Requests (ASRs) when used to order local services and products based on BellSouth and CLEC provided documentation.

(8) The process for ordering and obtaining CLEC collocation within BellSouth end offices must be tested.

(9) See Appendix 1 for specific requirements for testing pre-ordering, ordering and provisioning.

B. Define maintenance, repair and emergency restoration scenarios:

(1) Test orders should allow for evaluation of the electronic bonding interfaces and non-bonded interfaces, and should test functionalities including OSS interface availability, average OSS response interval, average answer time-repair, missed repair appointments, customer trouble report rate, maintenance average duration, percent repeat troubles (within 30 days) and out of service greater than 24 hours.

(2) Maintenance and repair functionalities for each possible market entry option should be tested, including resale, interconnection and UNEs, individually and in combinations, including the UNE platform. Again, the test plan should specify that pending legal challenges to the issue of whether, to what extent and at what price BellSouth may or may not be required to offer any particular UNE or combination of UNEs may not be considered in developing and processing test orders.

(3) Order types must be sufficiently defined to allow testing and evaluation of all maintenance and repair functions, on a network as well as customer-specific basis, and on an emergency as well as routine basis, including:

(a) OSS and work processes such as
(i) Manual
(ii) TAFI
(iii) ECTA (EBI)
(iv) TI/MI
(v) EC-CPM

(vi) MLT
(vii) Legacy systems
(viii) Central office and field forces

(b) Performance measurements such as
(i) Interface availability
(ii) Response interval
(iii) Answer time
(iv) Missed repair appointments
(v) Trouble rate and average duration
(vi) Repeats
(vii) Out of service greater than 24 hours
(viii) OS/DA answer speed
(ix) OS/DA percent answered within X seconds
(x) Trunk group service summary and detail

(4) In addition to documenting maintenance and repair in connection with test orders, the test should include trouble created and reported by the tester, including:
(a) Open and short on the main distribution frame
(b) Open and short on CLEC's collocated frame or at POT frame
(c) Noise/echo on the line

C. Define CLEC Billing Requirements:

(1) Test orders should allow for evaluation of invoice accuracy, invoice timeliness, usage data accuracy, and usage data, timeliness, and ability to capture usage data for all calls including local and access.

(2) The test should also include an audit of BellSouth's end-user billing, wholesale billing, reciprocal compensation billing, and access billing. The test should cover three complete billing cycles, which can be compressed in time within BellSouth's systems.

(3) Billing functionalities for each market entry option should be tested, including resale, interconnection and UNEs, individually and in combinations, including the UNE platform. Again, test plan should specify that pending legal challenges to the issue of whether, to what extent and at what price BellSouth may or may not be required to offer any particular combination of UNEs may not be considered in developing and processing test orders.

(4) Order types must be sufficiently defined to allow testing and evaluation of all billing functions, on a wholesale as well as customer-specific basis, including:
(a) OSS and work processes such as
(i) ODUF/EDUF
(ii) ADUF
(iii) CMDS
(iv) EMR
(v) CRIS

(vi) CABS
(vii) Industrial billing
(viii) Legacy systems

(b) Performance measurements such as
(i) Invoice accuracy and timeliness
(ii) Usage accuracy
(iii) Usage timeliness

(5) Test protocol should ensure that BellSouth provides reliable and verifiable billing data that can be used by TPT to render complete and accurate bills for all services, including usage detail to its wholesale and retail "customers".

(6) Test should continue over the course of at least three complete billing cycles to ensure results are verifiable and reliable.

STEP THREE: PRE-TEST SETUP ACTIVITIES

GOAL: Completion of three pre-test activities in preparation for testing activities: (1) Establish basis for comparison of BellSouth's internal and external performance, (2) assemble resources necessary to perform test, and (3) attain test plan entrance criteria.

Process Overview:

1. Establish basis for comparison of performance:
   - A. Establish activities and outcomes to be tracked.
     - (1) The starting point should be the measures, standards, and disaggregation levels required by the Local Competition User's Group Service Quality Measures Document, V. 7.0 (or the version most current at the time).
     - (2) The TPT reviews performance measures currently ordered by Commission or offered by BellSouth.
     - (3) Based on these sources and based on other information collected by the TPT during the test development process, the TPT establishes meaningful method to track and compare BellSouth's performance in its provision of service to itself and to CLECs during the test process.
   - B. After appropriate tracking and comparison measures have been established, the TPT audits BellSouth's implementation of such measures to determine completeness, accuracy and reliability of BellSouth's performance reporting process.
2. Assembling test resources:
   - A. TPT obtains Test Bed of working telephone numbers and associated Customer Service Records.
   - B. TPT obtains test lines from a variety of sources.
3. Attain test plan entrance criteria:
   - A. Test plan has been completed.
   - B. All required BellSouth interfaces are operationally ready.
   - C. The Test Transaction Generator Vendor must be operationally ready.
   - D. CLEC facilities and personnel are available to support the CLEC elements of the Test plan.

Discussion:

These are three separate activities that may proceed concurrently.

1. Establishing basis for comparison of performance and evaluating its implementation:
   - A. At a minimum, the following aspects of performance must be audited:
     - (1) Documentation review: All supporting documentation for the performance measurement definitions, calculations, inclusions, exclusions, disaggregation, and data retention must be identified and explained to the auditor.

(2) Compliance review: All software procedures, including data collection, calculation and retention, must be assessed for conformance to the documented system.

(3) Output validation: System outputs must be assessed to determine whether reports are complete, accurate and timely and whether data transferred to data stores are accurate and up to date.

(4) Comparison validation: Comparative procedures must be assessed to assure that BellSouth uses the methodology designated for determining compliance with performance requirements.

B. TPT should collect data and manual records as necessary to evaluate performance, including but not limited to:

(1) Data recorded by TPT, reflecting the TPT's test experience, such as:

(a) Systems records from the electronic interface established with BellSouth

(b) Data gathered from CLEC systems where those systems are used as the interface vehicle

(c) Manual records kept by the TPT

(2) Data supplied by CLECs, reflecting commercial experience, including manual records.

(3) Data supplied by BellSouth in compliance with the performance measures established by the TPT.

(4) Manual records kept by test participants.

C. TPT shall analyze the collected data using appropriate statistical techniques to determine whether such performance is provided at parity. The TPT shall issue an Exception in each instance where it determines that performance is not provided at parity.

D. The tracking and comparision methodology established by the TPT must be detailed and disaggregated in order to allow for parties (the Commission staff, the TPT, and CLECs) to collect data that can be evaluated on "apples-to-apples" basis.

2. Assembling resources necessary to perform the test:

A. TPT should obtain a Test Bed of working telephone numbers and associated Customer Service Records.

(1) Obtain a sufficient quantity of numbers to use for purposes of testing. The quantity of telephone numbers shall be determined by the TPT and must be sufficient to allow concurrent, rather than sequential processing of test orders so as to expedite the testing process.

(2) Test bed should consist of numbers from a representative cross-section of BellSouth's switches throughout the state. Actual loops will not be connected; the numbers will be used to test the provisioning systems in BellSouth's switch for resold service and the unbundled local switching element.

B. TPT will need to obtain a number of test lines in addition to the Test Bed of telephone numbers to test provisioning, repair, restoration, call performance and billing.

(1) Residence test lines should be provisioned to CLEC and BellSouth employees as customers in order to allow testing on actual working lines. These lines should be non-critical second lines established for test purposes.

(2) New lines should be provisioned to a location(s) which the TPT may access for verification of ordering, provisioning and repair.

3. Attainment of entrance criteria:

A. Test plan has been completed by the TPT.

B. All pending legal and regulatory proceedings that affect the ability to perform the test must be concluded in a manner that allows testing to proceed.

C. All required BellSouth interfaces are operationally ready. Electronic interfaces to all OSS access functions must be fully tested and operational.

D. The Test Transaction Generator Vendor must be operationally ready.

E. CLEC facilities and personnel are available to support the CLEC elements of the Test plan. This could include designation of appropriate on-site working space and equipment for the testers, the training or hiring of necessary personnel, and any other appropriate measures in order to facilitate test implementation.

STEP FOUR: PERFORM RELATIONSHIP AND OPERATIONAL ANALYSIS TESTING

GOAL: A thorough analysis of the systems, processes and other operational elements associated with BellSouth's establishment and maintenance of business relationships with CLECs to evaluate adequacy, completeness and effectiveness.

Process Overview:
Per test plan.

Discussion:

1. The TPT must build interfaces necessary to process CLEC-to-BellSouth transactions.
   - A. In order to determine whether BellSouth's documentation is sufficient to permit CLECs to develop their OSS, TPT should build all OSS interfaces necessary to enter the market across the range of order types.
   - B. Interfaces built by the TPT should be sufficient to allow the TPT to simulate, as closely as possible, the experience of a CLEC entering the local market.
   - C. Test systems can be built more quickly and cheaply than CLEC systems because they are not integrated into real back-end business operations and need not be as large and robust as actual commercial systems.
2. Activities must be based upon documentation routinely provided to all CLECs, including technical specifications, business rules, CLEC handbooks, and support routinely provided to all CLECs.
3. As part of the process, TPT should test and review all supporting documentation and should determine and report upon:
   - A. Ease of understanding and interpretation
   - B. Accuracy and reliability
   - C. Consistency
   - D If problems exist, whether fully documented updates were timely provided to all CLECs
   - E. Adequacy of control process for documentation changes
4. Upon completion of interfaces, TPT conducts systems qualification (connectivity and end-to-end testing).
   - A. If no documented qualification process is in place, TPT prepares documentation of test process that can be applied in the future.
   - B. If qualification process fails, TPT issues Exception.
5. During on-going operation of the test, TPT conducts evaluations of the change management and system administration help desks and escalation procedures.
6. The TPT also must evaluate the business-to-business aspects of attempting to enter the local market, including:
   - A. Account establishment and management
   - B. Network design, collocation, and interconnection planning
   - C. CLEC training

D. Forecasting

7. As part of the business-to-business evaluation, TPT should test and review all supporting documentation and should determine and report upon:
   A. Ease of understanding and interpretation
   B. Accuracy and reliability
   C. Consistency
   D. If problems exist, whether fully documented updates were timely provided to all CLECs
   E. Adequacy of control process for documentation changes

STEP FIVE: CONDUCTING THE TRANSACTIONAL TEST

GOAL: Find and fix problems that would inhibit entry into the local market. BellSouth must clear all identified exceptions before it will be considered to have passed the test.

Process Overview:
Per test plan.

Discussion:

1. Transactional testing must be end-to-end, and thoroughly test pre-ordering, ordering, provisioning, maintenance and repair, and billing, including integration of pre-ordering and ordering. Access to all of these functions is imperative for full scale commercial operation by competitors.
2. Test orders should be as "blind" as possible. Additionally, volume and stress testing should be initiated without advance warning to BellSouth.
3. Test should include "normal" and peak commercial volumes, to be calculated based on information from BellSouth and the CLECs. Data to be evaluated would include:
   - A. BellSouth Demand Forecast for 1999 and 2000
   - B. BellSouth In-Service Actuals and Forecasts
   - C. CLEC Service Forecast Data Compiled by BellSouth
   - D. Historic CLEC OSS Usage Data
   - E. BellSouth CLEC Transaction Actuals as of (most recent available)
   - F. Resale Service Activity Reports
   - G. Case Studies of Market Share Changes in related Markets
   - H. CLEC Forecasts provided to TPT
4. "Normal" commercial volume would be that expected in the normal course of business after full competition is in place.
   - A. Peak volumes should be established of at least 150 percent of "normal" commercial volumes.
   - B. A volume stress test should be conducted over multiple days, in the TPT would place a large number of orders per hour over a course of several days in order to determine whether BellSouth can process such orders and whether performance is provided at parity.
   - C. The test should include meaningful volumes of manual orders.

STEP SIX: FINAL ANALYSIS AND REPORT

GOAL: The final test report should determine whether BellSouth is providing nondiscriminatory access to its OSS and, through its OSS, to its underlying network. The report should describe the underlying approach of the tests, describe the methodology used in each of the tests, and list the test data and results of each test. The report should provide sufficient detail to allow uninvolved third parties to fully understand how the test results were derived.

Process Overview:

1. The TPT completes qualitative and quantitative analysis and issues a draft report at the contracted interval.
2. Parties, including the Commission staff, will have the opportunity to provide comments.
3. TPT publishes final report.

Discussion:

1. Final report should provide results of the test, per the test plan by the TPT.
2. The report should describe any differences between the access to OSS functions BellSouth provides itself and that which its provides to CLECs. Operational effect of such differences should be analyzed and TPT should make recommendations to rectify such differences.
3. Generally accepted statistical methods should be used to conduct analysis and render conclusions about competitive conditions.
   A. Each test should define the data population observed, measurements taken, and statistical tests used.
   B. Data should be normalized, tabulated and archived in a way that allows verification of test results and re-analysis of data using additional statistical methods, if appropriate.
   C. Hypothesis testing should frame the analysis of test results, whereby statistics would be calculated and analyzed to determine whether or not to reject a null hypothesis.
4. Final report specifically should certify:
   A. Relative ease or complexity of creating each interface with the supplied documentation.
   B. Any additional support required of and provided by BellSouth to create the interface.
   C. Timeliness and level of support provided by after-market support services such as help desks and hot lines.
   D. Any areas of improvement that would materially reduce the cost, complexity, and time of this development and operation to the CLECs or BellSouth.

5. The report should recommend appropriate follow-up and oversight measures to ensure continued adherence to standards already achieved and prevent degradation of performance over time.

APPENDIX ONE

SPECIFIC REQUIREMENTS FOR TESTING PRE-ORDERING, ORDERING AND PROVISIONING

1. Pre-ordering:
   - A. Pre-ordering functionalities for each possible market entry option should be tested, including resale, interconnection and UNEs, individually and in combinations, including the UNE platform.
   - B. The test plan should specify that pending legal challenges to the issue of whether, to what extent and at what price BellSouth may or may not be required to offer any particular UNE or combination of UNEs may not be considered in developing or processing test orders.
   - C. Test orders should be sufficiently defined to allow for testing of:
     - (1) All pre-ordering functions such as address validation, CSR availability, USOC availability, numbering resource availability, due date interval and availability, editing capabilities, systems integration capabilities, telephone number verification, current PIC Status verification, and facilities availability including loop qualification for various types of digital loops.
     - (2) All pre-ordering OSS and work processes, including editing capabilities and systems integration capabilities of:
       - (a) LENS
       - (b) EC-Lite
       - (c) TAG
       - (d) LCSC and other associated centers
       - (e) Account team
       - (f) Legacy systems
     - (3) Performance measurement, such as:
       - (a) Response intervals
       - (b) Interface availability
       - (c) Facilities availability
       - (d) Information accuracy
2. Ordering:
   - A. Test orders should allow for testing access to product and service offerings for both simple and complex orders and promotions, performance of the provisioning and order status reports, editing capabilities and the integration of ordering systems with other systems.
   - B. Ordering functionalities for each possible market entry option should be tested, including resale, interconnection and UNEs, individually and in combinations, including the UNE platform. Again, test plan should specify that pending legal challenges to the issue of whether, to what extent and at what price BellSouth may or may not be required to offer any particular

UNE or combination of UNEs may not be considered in developing or processing test orders.

C. Order types must be sufficiently defined to allow testing and evaluation of all ordering functions, including:
   (1) Business processes such as
      (a) Editing/format/reject
      (b) Intervention
      (c) Loop qualification
      (d) Facility availability
      (e) Confirmation
      (f) OSS and work processes such as
      (g) Manual
      (h) EDI
      (i) EXACT
      (j) LENS
      (k) TAG
      (l) LCSC and other associated centers
      (m) Account team
      (n) Legacy systems
   (2) Performance measurements such as
      (a) Percent flow-through
      (b) Percent rejects
      (c) Reject interval
      (d) FOC interval
      (e) Speed of answer and call abandonment
      (f) Collocation response time
      (g) Average offered interval
      (h) Average submissions per order

3. Provisioning:
   A. Test orders should require a sizeable quantity of orders to be run through the system from start to finish and actually provisioned.
   B. Provisioning and installation functionalities for each possible market entry option should be tested, including resale, interconnection and UNEs, individually and in combinations, including the UNE platform. Again, test plan should specify that pending legal challenges to the issue of whether, to what extent and at what price BellSouth may or may not be required to offer any particular UNE or combination of UNEs may not be considered in developing and processing test orders.
   C. Order types must be sufficiently defined to allow testing and evaluation of all provisioning and installation functions, including:
      (1) Business processes such as
         (a) Loop qualification
         (b) Facility availability
         (c) Jeopardy notice
         (d) Completion notice
      (2) OSS and work processes such as

(a) SOCs/SOAC
(b) Manual
(c) EDI
(d) EXACT
(e) LENS
(f) TAG
(g) LCSC and other associated centers
(h) Legacy systems
(i) CO and field forces

(3) Performance measurements such as
(a) Completion interval
(b) Held order
(c) Jeopardy
(d) Percent missed appointments
(e) Percent trouble within 30 days
(f) Order accuracy
(g) Coordinated conversions
(h) Completion notice interval
(i) 911 timeliness and accuracy
(j) Collocation arrangement time
(k) Percent collocation due date missed
(l) Percent completions/attempts without notice or with less than 24 hours notice
(m) Percent service loss from early cuts
(m) Percent loss from late cuts
(n) Average datbase update interval other than 911
(o) Database accuracy other than 911

APPENDIX TWO

NEW YORK RFP FOR TEST MANAGER

STATE OF NEW YORK DEPARTMENT OF PUBLIC SERVICE

THREE EMPIRE STATE PLAZA, ALBANY, NY 12223-1350

Internet Address: http://www.dps.state.ny.us

PUBLIC SERVICE COMMISSION

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LAWRENCE G. MALONE
General Counsel

JOHN C. CRARY
Secretary

March 6, 1998

To potential bidders:

The New York State Department of Public Service is seeking a vendor to conduct an evaluation of Bell Atlantic New York's operational support systems (OSS). The evaluation will encompass the development of a specific testing plan, and execution of that plan. The attached Request for Proposal (RFP) outlines the scope of this project.

Vendors interested in responding to this RFP must submit 15 copies of their proposal by March 23, 1998. Your proposal, all communications, and any specific questions should be directed to Mr. John Rubino, Office of Utility Efficiency and Productivity, 3 Empire State Plaza, Albany, New York 12223-1350 (518) 473-7157.

Sincerely,

Thomas G. Dvorsky, Director
Office of Utility Efficiency
& Productivity

Enclosure

Request for Proposal to Perform an Evaluation of the OSS Interface Systems Offered by Bell Atlantic New York

I. Overview

1. As articulated in a number of Federal Communications Commission (FCC) Orders,[1] the Telecommunications Act of 1996 (the Act)[2] requires Bell Atlantic New York (BA-NY) to provide nondiscriminatory access to its operations support systems (OSSs) on appropriate terms and conditions, to provide the documentation and support necessary for competitive local exchange carriers (CLECs) to access and use these systems, and to demonstrate that BANY's systems are operationally ready and provide an appropriate level of performance. Compliance with these requirements will allow competitors to, among other things, obtain pre-ordering information, submit service orders for resold services and unbundled network elements (UNEs), submit trouble reports, and obtain billing information. BANY offers various systems, including both application-to-application interfaces and terminal-type/Web-based systems, that CLECs can use to access BANY's OSSs and thereby perform such tasks. The New York State Department of Public Service (DPS) has been considering the matter of BA-NY's compliance with the requirements of §271 of the Act in the context of Case 97-C-0271 (Petition of New York Telephone Company for Approval of its Statement of Terms and Conditions Pursuant to Section 252 of the Telecommunications Act of 1996 and Draft Filing of Petition for InterLATA Entry Pursuant to Section 271 of the Telecommunications Act of 1996). The DPS is seeking to retain consultants to assist it in assessing whether BANY is meeting these requirements.

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[1] *See* In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, FCC 96-325 (rel. Aug. 8, 1996) ("Local Competition Order"); In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, Second Order on Reconsideration, FCC 96-476 (rel. Dec. 13, 1996); In re Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, to Provide In-Region, InterLATA Services in Michigan, CC Docket No. 97-137, Memorandum Opinion and Order, FCC 97-298 (rel. Aug. 19, 1997) ("Michigan Order"); In re Application of BellSouth Corporation, et al. Pursuant to Section 271 of the Communications Act of 1934, as amended, to Provide In-Region, InterLATA Services in South Carolina, CC Docket No. 97-208, Memorandum Opinion and Order, FCC 97-418 (rel. Dec. 24, 1997) ("South Carolina Order"). For information on how to find these decisions, as well as related 271 evaluations of the U.S. Department of Justice, on the WWW, see the Additional Information section at the end of this RFP.

[2] Pub. L. No. 104-104, 110 Stat. 56 (1996).

II. Background

A. Telecommunications Act of 1996

1. To effectuate its goal of opening all telecommunications markets to competition, the Telecommunications Act of 1996 requires incumbent local exchange carriers (ILECs), such as BA-NY, to permit interconnect of their networks with the networks of competing local telephone service providers (the CLECs), to offer their retail telecommunications services for resale at wholesale rates, and to provide non-discriminatory access to elements within their networks on an unbundled basis ("unbundled network elements") so that CLECs can use such elements to provide local telephone services. The Act thus contemplates competitive entry into local telephone markets through three paths: resale of ILEC services, the use of unbundled network elements, and full facilities-based entry. These paths are not mutually exclusive: a CLEC may use more than one of these paths in entering any particular local market.

3. Before providing certain interLATA services within the area served by its local telephone companies, the Telecommunications Act requires a Bell Operating Company (BOC), such as Bell Atlantic, to apply to the FCC for authority to do so. The Act provides for the removal of this in-region interLATA restriction within a particular state through the granting of such authority upon a finding by the FCC that the BOC has met several statutory conditions, including compliance with a fourteen-point "competitive checklist" and a showing that the BOC's entry into the interLATA market in that state would be in the public interest. In reviewing a BOC application to determine whether the BOC meets these statutory conditions, the FCC is required to consult with the U.S. Department of Justice and give "substantial weight" to its assessment of the BOC's application for in-region interLATA entry. The FCC is also required to consult with the public service commission of the state that is the subject of the application to verify that the BOC has met certain requirements, including compliance with the competitive checklist.

B. OSS Requirements

4. The term "operations support systems" refers generally to the systems, information, and personnel that support a telecommunications carrier's network elements and services. These systems are essential to its ability to administer its telecommunications network and provide services to consumers. As indicated above, the Telecommunications Act requires BOCs to provide CLECs with nondiscriminatory OSS access. Accordingly, BOCs must put in place appropriate electronic systems and interfaces and related manual processes to allow CLECs to access BOC OSS functions and thus, among other things, obtain pre-ordering information, submit service orders for resold services

and unbundled network elements (UNEs), submit trouble reports, and obtain billing information. Compliance with these requirements is part of the fourteen-point competitive checklist and thus is a condition of BOC entry into the in-region interLATA market.

5. In several decisions noted above, the FCC has articulated the analysis and standards that it applies in determining whether a BOC is meeting its OSS obligations. The following paragraphs provide an overview of these principles. However, the decisions themselves provide the definitive explanations of the requirements, and persons should consult those decisions for additional information.

6. ***Analysis***: The FCC considers whether the access to OSS functions that the BOC provides adequately supports each of the three paths for competitive local entry described above: interconnection, unbundled network elements, and service resale. The FCC thus "seek[s] to ensure that a new entrant's decision to enter the local exchange market in a particular state is based on the new entrant's business considerations, rather than the availability or unavailability of particular OSS functions to support each of the modes of entry." ***Michigan Order*** ¶ 133. The FCC generally employs a two-part analysis.

7. First, the FCC examines the functionality of and support for the OSS systems and interfaces that a BOC provides to meet its obligation. Here, the FCC considers "whether the BOC has deployed the necessary systems and personnel to provide sufficient access to each of the necessary OSS functions and whether the BOC is adequately assisting competing carriers to understand how to implement and use all of the OSS functions available to them." ***Michigan Order*** ¶ 136. As to the ***functionality*** of those systems, the FCC determined that "[f]or those functions that the BOC itself accesses electronically, the BOC must provide equivalent electronic access for competing carriers" and that "the BOC must ensure that its operations support systems are designed to accommodate both current demand and projected demand of competing carriers for access to OSS functions." ***Id.*** ¶ 137. As to the ***support*** of those systems, the FCC has made particularly detailed determinations:

> A BOC . . . is obligated to provide competing carriers with the specifications necessary to instruct competing carriers on how to modify or design their systems in a manner that will enable them to communicate with the BOC's legacy systems and any interfaces utilized by the BOC for such access. The BOC must provide competing carriers with all of the information necessary to format and process their electronic requests so that these requests flow through the interfaces, the transmission links, and into the legacy systems as

> quickly and efficiently as possible. In addition, the BOC must disclose to competing carriers any internal "business rules," including information concerning the ordering codes [including universal service ordering codes ("USOCs") and field identifiers ("FIDs")] that a BOC uses that competing carriers need to place orders through the system efficiently.

Michigan Order ¶ 137 (footnotes omitted).

8. Second, the FCC considers whether the OSS systems and interfaces that the BOC has deployed are operationally ready, examining operational evidence to determine whether the functions that the BOC provides to CLECs are actually handling current demand and will be able to handle reasonably foreseeable demand volumes. The FCC has stated that the most probative evidence of operational readiness is actual commercial usage. Although carrier-to-carrier testing, independent third-party testing and internal testing can provide valuable evidence, they are less reliable indicators of actual performance than commercial usage. ***Michigan Order*** ¶ 138. The FCC considers whether specific performance standards exist and if they have been adopted by a state commission or agreed upon by the parties; standards adopted by a state commission in an arbitration decision are more persuasive evidence of commercial reasonableness than those unilaterally adopted by the BOC outside its interconnection agreement. ***Id.*** ¶ 141.

9. ***Standard***: In the ***Local Competition Order***, the FCC concluded that access to an ILEC's OSSs are critical to a CLEC's ability to use network elements and resale services to compete with the ILEC. The FCC determined that providing access to OSS functions falls within an ILEC's duty under section 251(c)(3) to provide unbundled network elements under terms and conditions that are nondiscriminatory, just, and reasonable, and its duty under section 251(c)(4) to offer resale services without imposing any limitations or conditions that are discriminatory or unreasonable. The FCC concluded that an ILEC must provide CLECs access to OSS functions for pre-ordering, ordering, provisioning, maintenance and repair, and billing that is equivalent to what it provides itself where there is a retail analog (the "parity" standard) and generally must provide network elements, including OSS functions, on terms and conditions that "provide an efficient competitor with a meaningful opportunity to compete" (the "meaningful opportunity to compete" standard).

10. In subsequent decisions, the FCC has reiterated its determinations regarding both the parity and meaningful opportunity to compete standards. ***See, e.g., Michigan Order*** ¶ 130. Regarding the parity standard, the FCC has clearly stated that parity means equivalent access and that this is to be applied broadly:

> For those OSS functions provided to competing carriers that are analogous to OSS functions that a BOC provides to itself in connection with retail service offerings, the BOC must provide access to competing carriers that is equal to the level of access that the BOC provides to itself, its customers or its affiliates, in terms of quality, accuracy and timeliness. We conclude that equivalent access, as required by the Act and our rules, must be construed broadly to include comparisons of analogous functions between competing carriers and the BOC, even if the actual mechanism used to perform the function is different for competing carriers than for the BOC's retail operations.

Id. ¶ 139; ***see also South Carolina Order*** ¶ 98 (quoting the ***Local Competition Order***, the FCC stated that, for such analogous OSS functions, "access to OSS functions must be offered such that competing carriers are able to perform OSS functions in 'substantially the same time and manner' as the BOC). The FCC specifically found that this standard of equivalent access applies to the OSS functions associated with pre-ordering, ordering, and provisioning for resale services; repair and maintenance for resale services; and repair and maintenance for UNEs; and measuring daily customer usage for billing purposes. ***Michigan Order*** ¶ 140. For OSS functions with no retail analog, such as the ordering and provisioning of unbundled network elements, a BOC must demonstrate that the access it provides affords a meaningful opportunity to compete. *Id.* ¶ 141.

11. **Scope:** To determine whether the BOC is meeting its duty to provide nondiscriminatory access to CLECs, the FCC considers all automated and manual processes a BOC uses to provide access to OSS functions. This includes the point of interface (or "gateway") for the CLEC's internal OSSs to interconnect with the BOC; any electronic or manual processing link between that interface and the BOC's internal OSSs (including all necessary back office systems and personnel); and all of the internal OSSs (or "legacy systems") that a BOC uses in providing network elements and resale services to a competing carrier. ***Michigan Order*** ¶¶ 134-35.

III. Purpose/Objective

12. DPS is seeking a telecommunications systems development, test, and integration vendor to (a) develop a comprehensive test plan that will be used to conduct an evaluation of the BA-NY OSS and OSS interface systems used to provide pre-ordering, ordering, provisioning, maintenance and repair, and billing functions to CLECs and (b) to conduct a detailed test of those systems based

on the designed test plan.[3] The vendor chosen shall work for and under the direction of the DPS staff.

13. The project described in this proposal will be broken into two phases. In the first the vendor will develop the test plan, and in the second the vendor will assess the ease or complexity of developing interface software and test BA-NY's OSS and OSS interface systems with test software developed specifically for these tests. Development of the interface software and other test software will not be part of this bid-the DPS will issue a separate RFP for the development of that software, based on the test plan defined in Phase 1-but, as described below, the vendor will assist DPS staff in preparing this separate RFP. Proposed schedules for each of the phases are outlined below. In the response, the vendor should provide a total fixed-price response to Phase 1, and an estimate clear statement of resources for Phase 2 of the project, and should also break out the price for Phase 1 and Phase 2.

A. Phase 1

14. The test plan developed in this phase must be sufficient to allow the DPS, by reviewing the results of the specified tests of BA-NY OSS and OSS interfaces (including the development by a third-party vendor of software to emulate CLEC interfaces in order to perform the tests), to determine whether BA-NY's provision of access to OSS functionality enables and supports CLEC entry into the local telecommunications market (through the purchase of resold services and UNEs, both singly and in combinations) meets the legal requirements described above. At a minimum, the test plan will need to address testing of the functionality of multiple OSS and OSS interfaces in a number of different areas and of the operational readiness of these systems and interfaces, focusing on how each function performs under real-world scenarios. The test plan must also include a mechanism for testing the capacity of BA-NY's OSS systems and interfaces to determine whether they can presently support levels of demand that are reasonably foreseeable in a competitive market or whether they can readily be scaled to do so in the future. In developing the test plan, the vendor will need to consult with the DPS, BA-NY, and CLECs planning to provide local services in New York, and any other appropriate organizations.

15. Appendix A provides a high-level outline of criteria for evaluating OSS and OSS interfaces. While not intended as a comprehensive list, it provides a general background as to the types of factors that must be considered in developing a test

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[3] Similar tests by such a vendor may be required following BA-NY's entry into the in-region long distance market to ensure that BA-NY is continuing to meet its OSS obligations.

plan. The purpose of providing Appendix A is to give potential vendors a framework for understanding the factors that must be addressed in the test plan. Once a vendor is selected, the DPS will make its staff available as needed to provide supplemental information and explanation.

16. The vendor will also assist DPS staff in drafting an RFP for the DPS to retain a third-party vendor, the Pseudo-CLEC, that will simulate the actual operations of a CLEC operating in New York State and using the various OSS systems and interfaces. As described below, the Pseudo-CLEC will build the "CLEC interface" associated with each application-to-application interface being tested and will process inquiries and orders through each of the OSS and OSS interfaces being tested.

B. Phase 2

17. This aspect of the evaluation will require the vendor to evaluate the ability of a CLEC, with the available documentation and support from BA-NY, to develop interface systems and software to correctly obtain pre-ordering information, submit orders for resold services and UNEs, submit maintenance and repair requests, and bill their end users and to use the systems and software it develops to provide telecommunications services to its customers. This will include a documented assessment of the relative ease or complexity in creating the interface and of after-market support services such as help desks, hot lines, and account management services. This work will be accomplished in conjunction with the work of the Pseudo-CLEC, as well as actual CLECs that are ready and willing to participate. During the course of this engagement, the vendor should identify any additional areas of improvement that would materially reduce the cost, complexity, and time of this development to the Pseudo-CLEC, CLECs, or BA-NY.

18. The vendor must develop and perform detailed tests of BA-NY's OSS and OSS interfaces based on the test plan designed in Phase 1. The test evaluation in Phase 2 must be more comprehensive than simply testing the interfaces, themselves, as the vendor will also be required to measure other critical aspects of BA-NY's OSS interfaces, such as documentation and resource support provided to CLECs. During the test, the vendor will be expected to fully document all test results, as well as the detailed test methodology, so that any third party can readily and fully ascertain how the tests were performed and how the results were derived. The performance measures will be based upon the service standards approved by the PSC in the Carrier-to-Carrier Service Standards Proceeding (Case 97-C-0139).

IV. Specific Deliverables

A. Phase 1

19. The vendor will be expected to provide an initial detailed test plan document, which shall provide a comprehensive plan to test the relevant BA-NY OSS and OSS interfaces required for BA-NY to provide access to OSS functions in conformance with applicable legal requirements. The test plan document should, at a minimum, address the full breadth of issues addressed in Appendix A and the additional detail provided to the vendor by the DPS once a vendor is selected.

20. Prior to delivery of the final test plan, the DPS will provide the initial test plan document produced by the vendor to BA-NY and to certain CLECs for a one-week comment period. At the end of the comment period, the vendor will be expected to, in consultation with the DPS, perform a revision to the test plan, incorporating reasonable recommended changes and additions to the test plan. The vendor will then be expected to deliver the final test plan document. BA-NY shall have the right to delay the commencement of Phase 2, or to terminate Phase 2, up until such time as the test commences.

B. Phase 2

21. The vendor will be expected to evaluate the ability of a CLEC, with the available documentation and support from BA-NY, to develop OSS interface systems and software for each OSS function and to use such systems and software to provide telecommunications services.

22. The vendor will be expected to perform the tests in full compliance with the test plan produced in Phase 1.

23. At the end of the test, the vendor will be expected to provide a document that includes a report on the test results. This report should provide the results of the test, per the test plan produced in Phase 1, and should specifically provide detail as to where BA-NY has met the requirements specified in the test plan. The report should describe any differences between the access to OSS functions BA-NY provides itself and that which its provides to CLECs and analyze the operational effect of such differences, and make recommendations to rectify such differences. The report should also discuss the vendor's assessment of the relative ease or complexity of creating the interface with the supplied documentation, any additional support required of and provided by BA-NY to create the interface,[4] the

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[4] If such additional support is required or if existing documentation requires improvement, the additions and improvements shall be documented in a useable form and made available to all market participants.

timeliness and level of support provided by after-market support services such as help desks and hot lines, and any additional areas of improvement that would materially reduce the cost, complexity, and time of this development and operation to the Pseudo-CLEC or BA-NY.

24. The vendor will also be expected to provide a supporting document that describes the underlying approach of the tests, describes the methodology used in each of the tests, and lists the test data and results of each test. This supporting document should provide sufficient detail to allow uninvolved third parties to fully understand how the test results were derived.

V. Schedule

25. The DPS proposes the following schedule for the implementation of Phases 1 and 2. Vendor responses may provide their own proposed schedules for Phases 1 and 2, if the vendor feels for any reason that the schedule provided herein is not achievable. If its proposed vendor schedule in the response differs from the schedule herein, the vendor should provide a rational for any such differences.

Vendor Selection

March 6	Issue RFP
March 13	Vendor conference-questions addressed
March 23	Vendor proposals due
March 30-31	Vendor interviews
April 1	Vendor selected

Phase I

May 1	Initial test plan document due
May 8	Comments on test plan due
May 18	Final Phase 1 deliverables due

Phase II

Phase II dates will be set upon the completion of Phase I, with the expectation that Phase II will be completed by July 31, 1998.

VI. Proposal Response

26. Vendors interested in responding to this RFP must submit 15 copies of the response by March 23, 1998, to the DPS. Responses must provide a clear demonstration of the vendor's understanding of the objectives and deliverables of this engagement and illustrate the vendor's approach to meeting these objectives in a timely and comprehensive fashion. The proposal response should include the following:

a. Detailed description of the vendors qualifications to perform Phases 1 and 2 of this engagement: Vendor should discuss its general experience in building test plans and in performing comprehensive tests of information systems and system interfaces. Vendor should also discuss its specific experience, if any, in building test plans for and in

testing telecommunications OSS and OSS interfaces.

b. Detailed response on how the vendor will meet each of the deliverables described for Phases 1 and 2: The vendor should make reference to how its deliverables will test against criteria similar to those specified in Appendix A. The response must include some estimate of required vendor resources, as well as a work break-down schedule for both Phases 1 and 2.

c. Details on the engagement team: Vendor must provide name and credentials of the vendor team members who will be involved in both Phase 1 and Phase 2.

d. Organizational structure for the engagement: The vendor must provide the structure of its resources that will be involved in the implementation. If this structure differs for Phase 1 and Phase 2, two organizational structures should be provided. The vendor should note which resources in this organizational structure will be dedicated to the project and which resources will be shared. Provide specific personnel that will work on each Phase of this project, their expected time commitment, and credentials. These personnel should be available for pre-selection interviews. For any shared resources, the vendor should specify what percentage of that resource's time will be allocated to the project. If the proposal includes personnel from other organizations, a clear statement of roles, responsibilities, and time allocations should be included.

e. Price proposal: The vendor shall provide a not-to-exceed cost in which the cost of professional services and out-of-pocket expenses are separately stated. The proposal must include the current professional fee rates for each individual. The bid shall provide a break-out of the price associated with Phase 1 work and the price associated with Phase 2 work. The vendor should detail any assumptions going into the price bid. The not to exceed price shall be inclusive of all expenses associated with the creation of the deliverables, including travel and incidentals. Payments under the contract will be made according to a negotiated schedule of deliverables, with a significant portion of Phase 1 and 2 payments retained until completion of Phase 2 deliverables. Proposals should identify key milestones for payment.

f. Other work: The vendor shall identify each existing contract or other agreement that it has with Bell Atlantic or Bell Atlantic's affiliates and shall describe any work that it or its affiliates are doing or have done for Bell Atlantic or Bell Atlantic's affiliates in the past two years. The vendor shall also identify and describe any work that it or its affiliates are doing or have done for other telecommunications services providers in the past two years.

27. Your proposal, all communications, and any specific questions should be directed to Mr. John Rubino, Office of

Utility Efficiency and Productivity, 3 Empire State Plaza, Albany, NY 12223-1350. He can be reached at (518) 473-7157 or jjr@dps.state.ny.us.

VII. Additional Information

28. Various FCC orders and Department of Justice evaluations that discuss OSS issues are available on their respective Web sites. See the following Web pages:

http://www.fcc.gov/ccb/local_competition/welcome.html

http://www.fcc.gov/Bureaus/Common_Carrier/in-region_applications/

http://www.usdoj.gov/atr/statements/index.htm

In addition, in July 1997, New York Department of Public Service Administrative Law Judge Stein issued a Ruling Concerning The Status Of The Record regarding BA-NY's draft §271 application. This ruling, as well as other rulings and documents related to the §271 proceeding and the Carrier-to-Carrier Service Standards Proceeding, can be found on the New York State Public Service Commission's Website at the following address:

http://www.dps.state.ny.us

Appendix A

Introduction

The Telecommunications Act of 1996 provides for three modes of competitive entry into local telephone markets: interconnection, unbundled network elements, and service resale. As part of a 271 application to provide long distance service in its region, a Bell Operating Company (BOC) must demonstrate that it supports all three modes of entry through appropriate wholesale support processes, including the critical access to OSS functions. This involves support for pre-ordering, ordering, provisioning, maintenance and repair, and billing.

The standards and analysis for determining whether a BOC has met this statutory obligation have been articulated and applied in several prior decisions of the Federal Communications Commission and evaluations of the Department of Justice. In summary, the relevant standards are whether the access provided affords an efficient competitor a meaningful opportunity to compete and whether, as to functions provided to CLECs that are analogous to functions provided to itself in connection with its retail services, whether a BOC provides access to CLECs that is equivalent to that it provides itself. In applying these standards, the FCC and the Department consider the functionality of a BOC systems and the support it provides for them; the operational readiness of the systems; and the performance of those systems.

This document seeks to provide vendors responding to the NYPSC RFP (Request for Proposal to Perform an Evaluation of the OSS Interface Systems Offered by Bell Atlantic New York) a high-level framework of general factors generally considered in evaluating a BOC's OSS, OSS interfaces, and support processes generally. Because it cannot realistically list every function of a BOC's own systems and thus include everything necessary to make a parity showing, this document does not purport to lists everything that may be necessary to demonstrate compliance with the relevant legal standards. Rather, its purpose is to provide responding vendors an overview of the breadth of issues that must be addressed as part of the test plan and testing of Bell Atlantic New York's OSS and OSS interfaces.

I. GENERAL PRINCIPLES

A. ***Industry Standards***: Whether the BOC has implemented, complies with, and supports applicable industry standards[5].

1. As to any application area, whether the BOC has

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[5] In the context of this proceeding, BA-NY's implementation and compliance will be measured against the applicable industry standards as they have been implemented in New York.

implemented the most recent version of the most recent industry standard(s) within a reasonable period of time.

2. The primary standards organizations today, all of which are part of the Alliance for Telecommunications Industry Solutions (ATIS), are as follows:

   a. Carrier Liaison Committee (CLC), including the Ordering and Billing Forum (OBF) and the Network Interconnection and Interoperability Forum (NIIF);

   b. Telecommunications Industry Forum (TCIF), including the Electronic Communications Implementation Committee (ECIC), Electronic Data Interchange (EDI) Committee, and the Service Order Subcommittee (SOSC); and

   c. Committee T1, including the T1M1 subcommittee on Internetwork Operations, Administration, Maintenance, & Provisioning.

3. De Facto Standards: Whether the BOC supports interfaces and protocols, that while not adopted by any recognized standards body, have achieved widespread use.

B. ***Application-to-Application Interfaces***: Whether the BOC provides electronic access to OSS functions via application-to-application interfaces that allow CLECs to tie their OSSs directly to BOC OSSs via these interfaces. (In numerous instances, a BOC will be implementing application-to-application interfaces to comply with and support applicable industry standards.)

C. ***Alternative Interfaces***: Whether the BOC provides alternative electronics interface for accessing key OSS functions.

1. Some CLECs, at least initially, may not maintain their own internal OSSs for all OSS functional categories or may find that it is not feasible to tie their OSSs to a BOC's OSSs via application-to-application interfaces for some or all OSS functions.

2. In such situations a graphical user interface (GUI) or other terminal-type interface may be the only viable, nondiscriminatory mechanism for certain CLECs to gain access to a BOC's OSSs.

D. ***Support***: Both with regard to each OSS system and interface offered to CLECs and, more generally, with regard to its support processes generally, whether the BOC provides detailed and accurate documentation,

training, and support.

1. CLEC Implementation Support: Whether the BOC works cooperatively with CLECs at all stages of the development and implementation process, from the development of requirements and specifications to testing and final roll-out.

2. Documentation

   a. Whether the BOC provides appropriate documentation for its wholesale support processes, including the following:

      (1) thorough support documentation regarding the implementation and usage of each of its OSS interfaces, *e.g.*, technical reference manuals and user's guides;

      (2) specifications for instructing CLECs on how to modify or design their systems to communicate with the BOC's interfaces and OSSs, including full documentation of the Applications Programming Interface (API) for all application-to-application interfaces;

      (3) information necessary to format and process their electronic requests so that these requests flow through the interfaces, the transmission links, and into the legacy systems as quickly and efficiently as possible, including

         (a) syntactical requirements;

         (b) internal "business rules";

         (c) ordering codes, including universal service ordering codes ("USOCs") and field identifiers ("FIDs"), used to identify the different services and features used in offering telecommunications services to customers;

         (d) other information necessary to enable CLECs to "pre-validate" service orders in a manner equivalent to the system edits and other validity checks performed by BOC service order negotiation systems for their retail service orders.

   b. Whether the BOC has an established, documented procedure for keeping its

documentation up to date and for disseminating documentation to CLECs.

c. Whether the BOC provides an electronic method of disseminating documentation and of notifying CLECs that updated documentation is available.

3. System/Interface Changes & Change Management

a. Whether the BOC has an established, documented change management process for controlling and keeping CLECs and any other interested persons informed of changes to its OSS interfaces and the OSSs underlying those interfaces.

b. Whether the BOC provides an electronic method of disseminating information regarding such changes.

c. Whenever it updates an OSS interface, whether to support a new release or version of a standard or for other purposes, whether the BOC maintains backward compatibility for a commercially reasonable period of time.

d. Whenever it replaces an OSS interface or system, whether the BOC maintains the obsolete interface or system for a commercially reasonable period of time to provide a transition period for users of that interface or system to move to other interfaces or systems.

4. Service Center/Help Desk: Whether the BOC provides one or more service centers, or "help desks," that CLECs can contact for support purposes (such as with questions regarding OSS system or interface specifications, other documentation, or usage), whether the centers have appropriate hours of operation, and whether they centers are adequately staffed terms of the number of persons and their level of expertise.

E. *Capacity*: Whether the BOC's support processes are able to support customers in reasonably foreseeable quantities or at least are scalable to such a level within a minimal time period.

1. "Reasonably foreseeable quantities" means quantities that competitors collectively would ultimately demand in a competitive market where the level of competition was not constrained by any limitations of the BOC's interfaces or support processes or by any other factors that the BOC may

influence.

2. "Minimal time period" means a period that would not artificially limit the growth of competition, *i.e.*, at a pace sufficient "to ensure that a new entrant's decision to enter the local exchange market in a particular state is based on the new entrant's business considerations, rather than the availability or unavailability of particular OSS functions," Michigan Order ¶ 133.

3. Statements regarding CLEC forecasts and evidence of adequate capacity for those projections are not necessarily sufficient. To the extent that CLEC forecasts were constrained by limitations of a BOC's interfaces or support processes or by other impediments to competition, they would not provide a basis for a showing of adequate capacity.

4. An analysis of these issues should account for and discuss demand for the entire region served by the OSSs at issue. Thus, when a BOC deploys region-wide systems, since the capacity of the system to provide service in any state will necessarily be affected by regionwide usage, the analysis should consider its entire region, not merely the particular state for which a 271 application is being filed.

II. PRE-ORDERING

A. Application-to-Application Interfaces

1. Whether the BOC provides and supports an application-to-application interface to its OSSs that support pre-ordering functions related to service resale and the provision of network elements.

2. Whether a CLEC can readily integrate this application-to-application pre-ordering interface with the BOC's application-to-application ordering interface so that the CLEC can implement integrated systems for their representatives that provide seamless support of pre-ordering and ordering functions.

B. Industry Standards: Whether the BOC's pre-ordering interfaces support protocols that will be used in the forthcoming industry standards, CORBA and EDI.

C. Other General Considerations

1. ***Query Response Times***: Whether the BOC's pre-ordering interfaces provide pre-order response in substantially the same time frames as the BOC receives such responses internally for similar

functions.

2. ***Data Updates***

   a. Where a BOC uses separate databases for responding to BOC and CLEC pre-ordering queries, whether the databases used for responding to CLEC queries are updated as frequently as the databases used for responding to BOC queries.

   b. Where, instead of providing an application-to-application interface for a particular pre-ordering functions, a BOC provides a database to the CLEC to load into the CLEC's systems and access internally, whether the BOC prepares and delivers to CLECs updates to such databases as frequently as it updates the databases used for responding to BOC queries.

D. Key Functions

1. ***Address verification***: Whether the BOC provides access to address validation functions and whether responses to CLEC queries contain the same functional information as the BOC has for its own business (for example, if a BOC provides building floor information, *e.g.*, 3d floor, for itself, whether it also provides floor information to CLECs).

2. ***Telephone numbers***: Whether the BOC provides access to telephone number request, telephone number reservation, and telephone number cancellation functions, including whether CLECs have functionality equivalent to what the BOC provides itself for its retail business (*e.g.*, if a BOC supports reservation of vanity telephone numbers, whether it also offers this capability to CLECs through the electronic pre-ordering interfaces) and whether the BOC places any greater restrictions on the number or types of telephone numbers that a CLEC can request or reserve than it places on its own ability to request and reserve telephone numbers.

3. ***Customer Service Records (CSR)***: Whether the BOC provides access to functions for accessing CSRs, including whether the BOC blocks or deletes any portion of the CSR, whether the CSR is provided in parsed or unparsed format, and whether there are any restrictions on the size of a CSR retrievable through an electronic request on a real-time basis.

4. ***Service and product availability***: Whether the BOC provides access to functions that will allow CLECs to determine the services and products that are available to customers at particular locations, including whether the BOC provides a function for a feature validation request that allows the CLEC to determine what features and services are supported by a given central office switch.

5. ***Due-date reservation and appointment scheduling***: Whether the BOC provides to due-date request, due-date reservation, due-date cancellation, and appointment scheduling functions. Whether the BOC provides non-discriminatory access to due dates and appointment dates, including whether it draws dates for both BOC and CLEC orders from the same date pool.

6. ***Primary Interexchange Carrier (PIC) list***: Whether the BOC provides access to the PIC list applicable to a particular switch or telephone number.

7. ***Facility availability***: To the extent that it provides its retail representatives with information regarding the availability of facilities necessary to fill an order, whether the BOC provides access to functions that give CLECs access to the same information provided to the BOC retail representatives.

8. ***Primary Interexchange Carrier (PIC)***: Whether the BOC provides access to a function that identifies the subscriber's current PIC.

9. ***Directory listing***: To the extent that BOC subscribers can contact a BOC representative to verify their directory listings, whether the BOC provides access to functions that give CLECs access to the same directory listing information that is provided to the BOC retail representatives.

III. ORDERING & PROVISIONING

A. Application-to-Application Interfaces/Industry Standards: Whether BOC provides and supports a single application-to-application interface to its OSSs that

1. supports ordering functions related to service resale and the provision of unbundled network elements;

2. complies with and supports the applicable ordering standards, presently including the EDI SOSC Version 7.0 EDI specification for ordering of telecommunications services and the OBF Local

Services Ordering Guide Version 2.0, which provides the definition for the Local Service Request (LSR), and the new OBF LSOG Version 3 and TCIF EDI SOSC Version 8; and

3. can be readily integrated with the application-to-application pre-ordering interface so that CLECs can implement integrated systems for their representatives that provide seamless support of pre-ordering and ordering functions.

B. Other General Considerations

1. ***Alternative Electronic Interface***: Whether the BOC provides an alternative terminal-type electronic interface, ***e.g.***, a Web-based interface, for accessing key ordering functions related to service resale and the provision of network elements and, if so, whether that interface complies with the LSOG guidelines.

2. ***Flow-Through***: Whether the BOC provides flow-through for the following local service orders:

   (1) orders for services as to which there is flow-through for BOC service orders;

   (2) orders for services that are analogous to services as to which there is flow-through for BOC service orders, ***e.g.***, orders for an end-to-end combination of network elements (the "platform"); and

   (3) orders for individual UNE loops.

C. Key Functions

1. Whether the BOC provides support, through all ordering interfaces offered, for both total services resale (TSR), including vertical features, and the full suite of unbundled network elements (UNEs), including loops, ports, trunks, E911, directory services, and operator services.

2. Whether the BOC provides support for migration-as-specified orders, migration-as-is orders, and new service orders.

3. Whether the BOC provides support for feature changes, service disconnect, service suspend, and move and change activities.

4. Order Status Functions:

   a. Whether the BOC provides electronic order status capabilities, including firm order confirmation (FOC), order completion notification, order jeopardy notification,

and order rejection notification.

b. Whether the BOC provides all these electronic notifications through the same single, standards-based application-to-application interface referred to above.

c. To the extent that a BOC's retail representatives are able to interactively query status or other information about an order, whether the BOC provides CLECs an equivalent capability through its application-to-application and alternative interfaces.

IV. MAINTENANCE & REPAIR

A. Industry Standards/Application-to-Application Interfaces: Whether the BOC has implemented, complies with, and supports the standard interface for trouble administration for local services, the T1M1 standard T1.227 and T1.228 and the additional ECIC implementation guidelines for a trouble administration OSS interconnection system.

B. Alternative Interface: Whether the BOC provides an alternative terminal-type electronic interface, *e.g.*, a Web-based interface, for trouble administration.

C. Key Functions

1. Whether each trouble administration interface allows CLECs to place trouble tickets, close out trouble tickets, and receive status on open troubles.

2. Whether each trouble administration interface allows CLECs to perform tests on the services, such as a mechanized loop test (MLT).

V. BILLING

A. Industry Standards: Whether the BOC supports CABS format for wholesale bills and EMI/EMR format for message processing.

1. A BOC should implement billing interfaces that provide billing data for resale and UNEs in these formats to be considered to be conforming to the standards.

B. Key Functions

1. Whether the BOC provides monthly billing data electronically to CLECs.

2. Whether the BOC provides daily usage feeds to CLECs with information of a sufficient detail for CLECs to prepare end-user bills.

APPENDIX THREE

NEW YORK RFP FOR TEST TRANSACTION GENERATOR

STATE OF NEW YORK DEPARTMENT OF PUBLIC SERVICE

THREE EMPIRE STATE PLAZA, ALBANY, NY 12223-1350

Internet Address: http://www.dps.state.ny.us

May 15, 1998

To Potential Bidders:

The New York State Department of Public Service is seeking a vendor to build an OSS interface to Bell Atlantic New York and execute test transactions through that interface. The attached Request for Proposal (RFP) outlines the scope of this project.

A bidders informational meeting will be held on Tuesday, May 19, 1998 at the Department of Public Service, 3 Empire State Plaza, Albany, New York, 18th Floor.

Vendors interested in responding to this RFP must submit 15 copies of their proposal by May 26, 1998. Your proposal, all communications, and any specific questions should be directed to Mr. John Rubino, Office of Utility Efficiency and Productivity, 3 Empire State Plaza, Albany, New York 12223-1350, (518) 473-7157.

Sincerely,

Thomas G. Dvorsky, Director
Office of Utility Efficiency and Productivity

Attachments

CLEC Test Transaction Generator Request for Proposal

May 15, 1998

Background

On March 6, 1998, the New York State Department of Public Service (DPS) issued a Request for Proposals (RFP) to retain a consultant to develop a plan designed to test Bell Atlantic New York (BANY) operational support system[1] (OSS) interfaces to be used by new entrants competing in the local exchange market. The Public Service Commission selected KPMG Peat Marwick for this phase (Phase I) of the project. As detailed in the March 6, Phase I RFP,[2] a second part of the project (Phase II) requires that the DPS retain a third-party vendor (CLEC Test Transaction Generator) to build an application-to-application OSS interface and process queries, service order requests and trouble reports through this OSS interfaces. In addition to application-to-application interface testing, the CLEC Test Transaction Generator will process various orders and queries through Bell Atlantic New York's existing Graphical User Interface (Web GUI).

This RFP seeks bids from vendors who will operate as the Test Transaction Generator to perform the work defined herein. The vendor chosen will work for and under the direction of the DPS staff. **The bidders informational meeting will be held on May 19, 1998 at the Department's Offices in Albany, New York (3 Empire State Plaza - 18th Floor) commencing at 11:00 AM. Proposals are due Tuesday, May 26, 1998**

Scope

The scope of the vendor's involvement is to build OSS interfaces based upon documentation and support provided by Bell Atlantic New York and to process various inquiries and orders through this interface as identified by KPMG Peat Marwick. Specifically, the vendor will:

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[1] The term "operations support systems," or OSS, refers generally to the systems, information, and personnel that support a telecommunications carrier's network elements and services. These systems are essential to its ability to administer its telecommunications network and provide services to consumers. As indicated above, the Telecommunications Act requires Bell Operating Companies (BOCs) to provide CLECs nondiscriminatory OSS access. Accordingly, BOCs must put in place appropriate electronic systems and interfaces and related manual processes to allow CLECs to access BOC OSS functions and thus, among other things, obtain pre-ordering information, submit service orders for resold services and unbundled network elements (UNEs), submit trouble reports, and obtain billing information. Compliance with these requirements is part of the fourteen-point competitive checklist and thus is a condition of BOC entry into the in-region interLATA market.

[2] The March 6, 1998 Request for Proposal can be found at the New York State Department of Public Service homepage at www.dps.state.ny.us/tel271.htm

1) Using BANY provided parsing rules, develop the ability to parse BANY CSR data so that pre-ordering can be tested at anticipated volumes in full integration with ordering OSS. All knowledge gained through this process will be communicated to interested CLECs in a timeframe and fashion that will allow CLECs to parse data during the execution of testing functions.

2) Build an application to application OSS interface (based upon baseline documentation[3] provided by BANY that can support transactions associated with preordering, service ordering, provisioning, repair and maintenance,[4] and billing.

3) Document the relative ease or complexity of creating the interfaces from the BANY supplied baseline documentation and document and inventory any additional documentation and/or support required of and provided by BANY to create the interface.

4) At the direction of the Test Manager, construct and electronically submit various forms[5] associated with Local Service Requests (LSRs), End Users (EU), Loop Service (LS), Local Service with Number Portability (LSNP), Number Portability (NP), Port Service (PS) Requests, Directory Listing Information (DL) and Access Service Requests (ASRs) for specific services being ordered through BANY's EDI, NDM or FTS interface.

5) Construct and electronically submit service order requests (for resale, unbundled elements and platform), queries, associated trouble reports and other transactions through BANY's Web GUI, the type and volume to be determined by KPMG Peat Marwick.

6) Receive various BANY confirmations, jeopardy notices, completion notices and responses back from querying the various OSS functions.

7) For any transaction or series of transactions, construct the capability to follow the sequence of transactions and responses to a logical end using in-place business processes. For those transactions/responses which require a manual response transaction (e.g. exception processing) from the Test Transaction Generator, accumulate the responses into

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[3] For unbundled elements and platform orders, the "baseline" documentation provided will be the information agreed to by Bell Atlantic New York and the CLECs in the Commission's OSS UNE Collaborative and is more fully discussed below. Additional documentation relative to resale orders will be provided as well.

[4] For purposes of this test, the electronic gateway for activities associated with trouble reporting will not be an application-to-application, but rather will be the Repair Trouble Administration System (RETAS). This system will be accessed via the Bell Atlantic New York Graphical User Interface (Web GUI).

[5] To verify the vendor's understanding of the preservice, ordering, provisioning and trouble report creation rules and process, the vendor will be required to provide to KPMG, the Department of Public Service and BANY, preservice and service order LSRs/ASRs along with other sample electronic transactions in advance of the testing.

an archive and provide to the Test Manager to manually complete these scenarios. The Test Transaction Generator should have the capability to accept resolved exceptions from the Test Manager and continue processing the sequence of transactions to their logical end.

8) Build the capacity to electronically capture, archive and transmit via electronic means and other data storage media (i.e., 3.5 inch diskette or CD ROM) in a specified file layout all timestamped data in a manner which uniquely identifies each transaction with its appropriate timestamp, matched to the transactions appropriate response(s) with its (their) associated timestamp(s).

9) Build the capability to deliver and receive a volume of transactions, including but not limited to Local Service Order Requests and Maintenance Requests that can be submitted to allow stress testing of the BANY wholesale systems and processes.

10) Document hardware, software and communications capabilities used to process electronic transactions.

11) Document all test results (including response times,[6] error rates and performance) to allow the performance to be evaluated based upon the interim service standards approved by the Public Service Commission in the Carrier-to-Carrier Service Standards Proceeding (Case 97-C-0139).[7] (See Attachment A)

12) Document an acceptance test plan for the CLEC Test Transaction Generator.

Resources Available to the Vendor

Information and support will be provided to the vendor to "build" the OSS interface and to "execute" the test plan.

Building the Interface

To "build" the OSS interface the New York State Department of Public Service will provide the vendor with baseline documentation. This documentation will consist of the baseline documentation agreed to by the parties in the Commission's OSS UNE Collaborative for unbundled elements and platform transactions and additional documentation relating to resale ("resale documentation"). Such documentation will include, but is not limited to:

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[6] Every message between the Test Generator and the BANY systems needs to be date/time stamped to provide information for performance measurements. While such date/time stamps may be conducted by BANY, it is expected that the vendor will date/time stamp the transmission and receipt of every message to allow an independent analysis.

[7] As detailed in BANY's April 6, 1998 Pre-Filing Statement (see Page 33), BANY has committed to provide a level of performance which is, at a minimum, equivalent to that specified in the interim carrier-to-carrier service standards developed in the context of Case 97-C-0139. A copy of the Bell Atlantic New York Prefiling Statement can be found on the Bell Atlantic homepage at: http://www.bell-atl.com

a) EDI8/LSOG2 for Resale, UNE and Platform Orders;

b) EDI9/LSOG3 for Pre-Service Order requests for Resale and UNE;

c) The Collaborative Issues Matrix that provides the agreed upon resolutions of issues. These resolutions clarify certain business rules and ordering processes for LSR and ASR data fields; and,

d) Bell Atlantic New York CLEC Handbooks.

In addition to this information, Bell Atlantic New York will provide:

a) Support functions similar to those provided to large CLECs entering the New York State local market to aide in all aspects of their market entry;

b) A BANY Account Manager. The Account Manager responsibilities are included as Attachment B;

c) A set of Billing Telephone Numbers (BTNs) representing test accounts that can be used for the test along with test account Customer Service Records (CSRs); and,

b) Access to BANY's Wholesale System as a registered CLEC.

Executing the Test Plan

To "execute" the test transactions through the OSS interface, the vendor will be provided the test plan that will identify the unique transactions that need to be executed. The test plan will identify the type and quantity of unique transaction requests that represent reasonably foreseeable volumes and mixes to be executed during the capacity test. For the stress and volume portions of the test, the vendor will process transactions and responses through an automated interface. However, the vendor will have to provide personnel to provide support for items such as error/reject follow-up and correction. For those transactions/responses requiring manual responses/transactions (e.g., exception processing), the vendor will accumulate BANY responses into an archive which is sent to the Phase II Test Manager for analysis. The Phase II Test Manager will direct the CLEC Test Transaction Generator in the running of these tests. This Phase II Test Manager will be identified by the DPS.

For functionality testing, the vendor will provide hardware and software (and support) to create a "business office" environment. This "business office" may be staffed by resources obtained from the industry by the Department of Public Service.

The Proposal

Vendors interested in responding to this RFP must submit 15 copies of the response by May 26, 1998 to the DPS. Responses must provide a clear demonstration of the vendor's understanding of the objectives and deliverables of this engagement and illustrate the vendor's approach to meeting these objectives in a timely and comprehensive fashion. The proposal response should include the following:

1. Detailed description of the vendors qualifications to perform the CLEC Test Transaction Generator functions. Vendor should discuss its general experience in

building electronic interfaces and performing comprehensive tests of information systems and system interfaces. Vendor should also discuss its specific experience, if any, in building and in testing telecommunications OSS interfaces.

2. Details on the engagement team. Vendor must provide name and credentials of the specific vendor team members who will be involved.

3. Organizational structure for the engagement. The vendor must provide the structure of how its resources will be involved in the project (including the time and unit price).

4. Price proposal. The vendor shall provide a fixed price bid for the project. The vendor should detail any assumptions going into the price bid. The fixed price shall be inclusive of all expenses associated with the creation of the deliverables, including travel and incidentals. Payments under the contract will be made according to a negotiated schedule of deliverables, with a significant portion retained until completion of execution of the test. Proposals should identify key milestones for payment.

5. A detailed description of any existing contracts or agreements with Bell Atlantic New York (and the former NYNEX) or its affiliates and define any work it or its affiliates have done for Bell Atlantic New York (and the former NYNEX) or its affiliates in the past two years.

6) Full disclosure of any and all discussions between the vendor and any Bell Atlantic representative and any documents or correspondence related to the following:

   a) Bell Atlantic OSS or legacy systems

   b) The testing or validation of OSS or legacy systems.

Your proposal, all communications, and any specific questions should be directed to John Rubino, Office of Utility Efficiency and Productivity, at the DPS's Albany Offices. He can be reached at (518) 473-7157 or JJR@dps.state.ny.us.

Schedule

The DPS proposes the following schedule for this phase (Phase II) of the project. If a bidder wishes to propose a different schedule, please include a full justification including milestones.[8]

May 15, 1998	Issue RFP
May 19, 1998	Bidders Meeting (Albany, New York)
May 26, 1998	Vendor proposals due

[8] This schedule assumes that BANY has in place all functionalities, definitions and, business rules necessary for the test.

CERTIFICATE OF SERVICE
DOCKET 981834-TP

I HEREBY CERTIFY that a true and correct copy of the foregoing was furnished via U.S. Mail to the following parties of record on this 28th day of May, 1999:

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